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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,466	06/28/2001	Ryoko Kitano	Q65163	3305

7590 11/17/2003

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EXAMINER

KILKENNY, TODD J

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/892,466

Applicant(s)

KITANO ET AL.

Examiner

Todd J. Kilkenney

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6, 8 and 9 is/are allowed.
- 6) ☒ Claim(s) 3-5, 7 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 5, 7 and 10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nakamura et al (US 6,004,420).

Nakamura et al teach a method of producing optical disks by bonding two disk substrates to each other through an adhesive sheet.

As to independent claim 3, the method of Nakamura et al comprises the steps of temporarily bonding an adhesive sheet to a first disk substrate, putting a second disk substrate on the exposed adhesive sheet and pressing the second disk substrate against the exposed adhesive sheet by elastic material to thereby stick the second disk substrate to the temporarily bonded article to form a stuck article and thereafter keeping the stuck article under a pressure or heat and pressure atmosphere to bond the first and second disk substrates together. Nakamura et al suggest in exemplary fashion, the

Art Unit: 1733

pressure atmosphere to be 10 kg/cm² (Col. 5, line 9 – Col. 6, line 37; Col. 6, line 57 – Col. 7, line 20). It would naturally flow that the pressing force provided by the elastic material when sticking the second disk substrate to the temporarily bonded article to form a stuck article would be less than the pressure the stuck article is kept during bonding as the pressure required to stick the second disk substrate onto the exposed adhesive to form a stuck article, not a bonded article would need to be less than the bonding pressure disclosed so as to ensure premature bonding doesn't occur.

In any event, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a pressing force, which is less than 10 kg/cm² to stick the second disk substrate to the temporarily bonded article to form a stuck article in view of Nakamura et al suggesting said second disk is stuck to the temporarily bonded article as opposed to bonded, wherein one of ordinary skill in the art would have readily appreciated a pressure less than 10 kg/cm² would be required to merely stick the second disk onto the exposed adhesive without bonding and without mixing/generating air bubbles into the adhesive agent.

As to independent claim 5, the rejection against claim 3 is applied, wherein the additional limitation of claim 5 directed towards pressing the second disk substrate against the first disk substrate by means of a pressing body which magnifies a contact portion from the center to the outside is anticipated by Nakamura et al and the elastic pressing body (20) which is shaped like a cone so that the second disk substrate first touches the temporarily bonded assembly from the center portion and sticks

successively toward the periphery of the assembly with the deformation of the elastic (Col6, lines 7 – 22).

As to independent claim 7, the rejection against claim 3 is applied, wherein the additionally limitation of claim 7 directed to applying a first hold pressure in bonding the adhesive to the first disk substrate and a second hold down pressure in the step of pressurizing the second disk substrate to the first disk substrate is anticipated by Nakamura et al as Nakamura et al suggest a step of pressing adhesive tape against the upper surface of the first disk substrate to form a temporarily bonded assembly and a later step of pressing the second disk substrate onto the temporarily bonded assembly (Col. 2, lines 3 – 16).

As to claim 10, Nakamura et al is directed to forming an improved disk substrate assembly wherein air bubbles are pressed out between the two disk substrates and hardly produced in the contact surfaces between the adhesive sheet and two disk substrates. One of ordinary skill in the art at the time of the invention would have readily appreciated that this would define a disc product having limited air bubbles, wherein the limited air bubbles would be of a minimized size (i.e. less than 50 micron).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al (US 6,004,420) in view of Michimoto et al (EO 0 330 197).

Nakamura et al teach pressing an adhesive sheet to the first disk substrate to form a temporarily bonded assembly, but Nakamura et al teach to press the adhesive sheet onto the first disk substrate from the center portion to the other portion (i.e.

radially) failing to suggest pressing from one end to the other end. However, the pressing method of Nakamura et al is aimed at pressing out air bubbles. As evidenced by Michimoto et al, it is also known to alleviate air entrapped between adhesive sheets and disk substrate, and suggest pressing between rollers from one end portion (Col. 5, lines 19 – 31). Therefore, it would have been an obvious alternative to one of ordinary skill in the art at the time of the invention to press the adhesive sheet of Nakamura et al to the first disk substrate using roller means so as press from one end to the other and only the expect air expelled temporarily bonded assembly would have been formed.

Allowable Subject Matter

5. Claims 6, 8 and 9 are allowed.

Nakamura et al teach sticking a second disk substrate onto the first disk substrate to form the stuck article (29) at one position (E) and thereafter rotating an index table (7) by about 45° to position (F) to the pressurized atmosphere to perform air bubble removal, therein failing to suggest or otherwise render obvious carrying out both operations at a single one of a plurality of processing locations (claim 8), wherein the elastic pressing body is employed within the high-pressure atmosphere (claim 6).

Response to Arguments

6. Applicant's arguments with respect to claims 3 – 5, 7 and 10 have been considered but are moot in view of the new ground(s) of rejection.

Newly applied Nakamura et al teaches a method of producing optical disks including a step of pressing a second disk substrate onto a first disk substrate having an adhesive sheet temporarily bonded thereto to form a stuck article and thereafter a step of subjecting the stuck article to a pressure atmosphere to form a bonded assembly with improved air bubble removal.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Todd J. Kilkenny** whose telephone number is **(703) 305-6386** or if attempting to contact after December 18, 2003 (571) 272-1219. The examiner can normally be reached on Mon - Fri (9 - 5).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

TJK

TJK


JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300